REMARKS

Claims 1-6 are pending in the application. Claims 1-6 are rejected. Claims 1-6 are amended herein. All amendments are supported by the specification and no new subject matter is added. All rejections are respectfully traversed.

The invention partially decodes a compressed bitstream to produce macroblocks of DCT coefficients. DCT filters are applied to the DCT coefficients to generate up-sampled macroblocks of up-sampled DCT coefficients.

Claims 1-6 are rejected under 35 U.S.C. 102(e) as being unpatentable over Kim. (U.S. Patent 6,249,549).

Kim up-samples (226) fully decoded pixels (222), see Figure 2.

Kim cannot anticipate the invention that up-samples partially decoded DCT coefficients.

Kim recovers the pixels for his reference frame 222 from motion vectors 220. One of ordinary skill in the art would never confuse the up-sampled pixels of Kim with the up-sampled DCT coefficient of the invention. Pixels exist in the spatial domain, DCT coefficients exist in the frequency domain.

In Kim, at column 5, lines 20-23:
"The exemplary reference frame memory 222 stores the **spatial pixel** values corresponding to at least one previously decoded reference frame having a resolution corresponding to the down-sampled picture."

In Kim, at column 2, lines 56-61:

"According to one aspect of the invention, the decimating means is coupled to an up-sampling filter which converts the blocks of low resolution down sampled video signal **pixel values** into up-sampled blocks of low resolution video signal **pixel values**. An adder then adds the **up-sampled** blocks of low resolution video signal **pixel values** to the block of first-filtered pixel values to provide a sum which is filtered by the pre-decimation filter and then decimated by the decimating means."

The filter in Kim is applied to pixels, see above. The claimed filter is applied to DCT coefficients.

Additionally, the DCT domain filter 216 depicted in Figure 2 of Kim does not perform the same function as the up-sampling processor 226, as is asserted in the Detailed Action by the Examiner. Instead, at column 5, lines 49-51, Kim states that the DCT domain filter 216 "performs a low pass filtering in the frequency domain by weighting the DCT coefficients with predetermined filter coefficient values." Furthermore, Kim states that the output "pixel value" of the DCT domain filter 216 is the "sum of 15 multiplications of the filter tap values with the corresponding pixel values," column 10, lines 60-62.

Regarding claim 2, it is clear that Kim fully decodes DCT coefficients to pixels, see column 4, lines 30-35, "The IDCT processor 130 transforms the reconstructed DCT coefficients to pixel values in the spatial domain." Claimed are up-sampled macroblocks having 2^N up-sampled DCT coefficients.

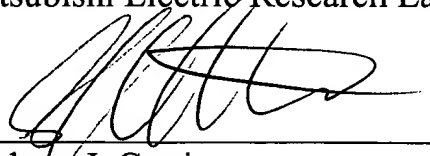
Regarding claim 3, the claimed filters are applied to DCT coefficients. The Kim polyphase filters only operate on pixels, see Table 1, and Figure 3.

Regarding claims 4-5, Kim does not describe up-sampling of DCT coefficients by matrix multiplication, or matrix filter taps at column 12, line 5 et seq.

Regarding claim 6, as the reasoning for rejecting claim 1 has been shown to be incorrect, the ground for the rejection of claim 6 has been traversed.

All rejections have been complied with, and applicant respectfully submits that the application is now in condition for allowance. The applicant urges the Examiner to contact the applicant's attorney at the phone and address indicated below if assistance is required to move the present application to allowance. Please charge any shortages in fees in connection with this filing to Deposit Account 50-0749.

Respectfully Submitted,
Mitsubishi Electric Research Laboratories, Inc.



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